



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,492	12/31/2003	Li Fung Chang	BP 3002	5444
34399	7590	06/15/2007		
GARLICK HARRISON & MARKISON			EXAMINER	
P.O. BOX 160727			PHU, PHUONG M	
AUSTIN, TX 78716-0727				
			ART UNIT	PAPER NUMBER
			2611	
			MAIL DATE	DELIVERY MODE
			06/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/749,492

Applicant(s)

CHANG ET AL.

Examiner

Phuong Phu

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-29 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/13/6, 12/4/6, 3/26/7.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because it does not identify the date that inventor Li Fun Chang signed the oath or declaration.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 27 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 27 and 28 recite the limitation "The wireless terminal of claim 32". It is unclear which "wireless terminal" the limitation refers to since claim 32 does not exist.

The limitation is suggested to be changed to --The wireless terminal of claim 21--.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3 and 5-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Tolmunen et al (6,658,235).

-Regarding to claim 1, Tolmunen et al discloses a method to determine whether a first wireless terminal (2) (see figure 3b) may transmit on an uplink to a servicing base station (see figure 3a) in a cellular wireless communication system, the method comprises:

procedure (2) (see figure 3b) of receiving four Radio Frequency (RF) bursts from the servicing base station, wherein the four RF bursts carry a data block that includes: Uplink State Flag (USF) bits; and Data bits “stealing bits” carrying information on a channel encoding scheme intended for the first wireless terminal and at least a second wireless terminal which shares the same time slot with the first wireless terminal (see col. 4, line 27 to col. 6, line 65, col. 8, line 63 to col. 11 line 13), (the Data bits “stealing bits” considered here equivalent with the limitation “Data bits intended for a second wireless terminal”);

procedure (comprising (14, 15, 16, 17, 18, 21) (see figure 3b)) of processing the four RF bursts to produce the data block in an encoded format; and partially decoding the data block in the encoded format to extract the USF bits (see col. 9, line 18 to col. 10, line 55); and

procedure (2) of using the USF bits to determine whether the first wireless terminal may transmit on the uplink to the servicing base station (see col. 10, line 53 to col. 11, line 13).

-Regarding to claim 2, Tolmunen et al discloses procedure (20) (see figure 3b) of decoding the data block after, or namely in the background when, the USF bits have been extracted from the data block (see col. 10, line 37-55).

-Regarding to claim 3, Tolmunen et al discloses that the data block corresponds to a GSM frame and each RF burst corresponds to a GSM sub-frame of the GSM frame (see col. 4, lines 27-38).

-Regarding to claim 5, Tolmunen et al discloses that the first wireless terminal is a wireless terminal that operates according to the GSM standard (see col. 3, line 65 to col. 4, line 38, col. 8, lines 1-4).

-Regarding to claim 6, Tolmunen et al teaches that the data block is encoded according to a CS-1 encoding scheme of a GPRS portion of the GSM standard (see col. 3, line 65 to col. 4, line 38, col. 8, lines 1-4, col. 6, lines 43-49, col. 8, lines 30-49).

-Regarding to claim 7, Tolmunen et al discloses that the data block is encoded according to both an outer encoding scheme (5) and an inner encoding scheme (6, 8) (see figure 3a, col. 8, lines 30-60); and the procedure of partially decoding the data block includes partially decoding the data block according to only the inner encoding scheme (see col. 10, lines 37-55)

-Regarding to claim 8, Tolmunen et al discloses that the outer encoding scheme comprises a linear binary block coding scheme "CRC"; and the inner encoding scheme comprises convolutional encoding (see figure 3a, col. 8, lines 30-60).

-Regarding to claim 9, Tolmunen et al discloses that the outer encoding scheme comprises a block coding scheme "CRC", (considered here equivalent with the limitation "Fire encoding"), allowing error correction and error detection; and the inner encoding scheme comprises convolutional encoding (see figure 3a, col. 8, lines 30-60).

-Regarding to claim 10, Tolmunen et al discloses procedure (16) of deinterleaving the data block prior to partially decoding the data block (see figure 3b).

Art Unit: 2611

-Regarding to claim 11, Tolmunen et al discloses that the USF bits indicate: whether a corresponding uplink is available; and when the corresponding uplink is not available, an indication of a wireless terminal using the uplink (see col. 10, line 52 to col. 11, line 13).

-Regarding to claim 12, as similarly applied to claims 1-3, 5-11, set forth above and herein incorporated, Tolmunen et al discloses a wireless terminal (2) (see figure 3b) that comprises:

a Radio Frequency (RF) front end (comprising (14)) operable to communicate with a servicing base station, wherein the RF front is operable to receive four RF bursts from the servicing base station that carries a data block having Uplink State Flag (USF) bits and data bits intended for a differing wireless terminal and to down convert the four RF bursts to produce a baseband signal;

a baseband processor (comprising (15, 16, 17) of communicatively coupled to the RF front end that is operable to receive the baseband signal from the RF front end and to process the baseband signal to produce the data block in an encoded format; and

an enCOder/DECOder (CODEC) processing module (comprising (18, 21, 20) (see figure 3b) and/or (CODEC) (see figure 6)) of communicatively coupled to the baseband processor that is operable to: receive the data block in the encoded format from the baseband processor; partially decode the data block in the encoded format to extract the USF bits; fully decode data blocks carrying data bits intended for the wireless terminal; and encode outgoing data bits to produce outgoing data blocks in an encoded format (see col. 10, lines 37-51, col. 11, line 29 to col. 12, line 42).

-Claim 13 is rejected with similar reasons set forth for claim 2.

-Claim 14 is rejected with similar reasons set forth for claim 3.

-Claim 15 is rejected with similar reasons set forth for claim 5.

-Claim 16 is rejected with similar reasons set forth for claim 6.

-Claim 17 is rejected with similar reasons set forth for claim 7.

-Claim 18 is rejected with similar reasons set forth for claim 8.

-Claim 19 is rejected with similar reasons set forth for claim 9.

-Claim 20 is rejected with similar reasons set forth for claim 11.

-Regarding to claim 21, as similarly applied to claims 1-3, 5-20, set forth above and herein incorporated, Tolmunen et al discloses a wireless terminal (2) (see figure 3b) that comprises:

a Radio Frequency (RF) front end (comprising (14)) (see figure 3b) operable to communicate with a servicing base station, wherein the RF front receives four RF bursts from the servicing base station that carries an data block having Uplink State Flag (USF) bits and data bits intended for a differing wireless terminal and to down convert the four RF bursts to produce a baseband signal; and

a baseband processor (comprising (15, 16, 17, 18, 21, 20) (see figure 3b) and/or (CODEC) (see figure 6)) communicatively coupled to the RF front end that is operable to: receive the baseband signal from the RF front end and to process the baseband signal to produce the data block in an encoded format; partially decode the data block in the encoded format to extract the USF bits; fully decode other data blocks carrying data bits intended for the wireless terminal; and encode outgoing data bits to produce outgoing data blocks.

-Claim 22 is rejected with similar reasons set forth for claim 2.

Art Unit: 2611

- Claim 23 is rejected with similar reasons set forth for claim 3.
- Claim 24 is rejected with similar reasons set forth for claim 5.
- Claim 25 is rejected with similar reasons set forth for claim 6.
- Claim 26 is rejected with similar reasons set forth for claim 7.
- Claim 27 is rejected with similar reasons set forth for claim 8.
- Claim 28 is rejected with similar reasons set forth for claim 9
- Claim 29 is rejected with similar reasons set forth for claim 11.

Allowable Subject Matter

6. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (8:00 AM - 4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuong Phu

Phuong Phu
06/02/07

**PHUONG PHU
PRIMARY EXAMINER**

Phuong Phu
Primary Examiner
Art Unit 2611